

Abstract of the Disclosure

A method for non-contact determination of sought properties of an object to be measured by using electromagnetic induction. An electromagnetic field is generated in a transmitter coil placed on one side of the object to be measured. The magnetic field penetrates through the object to be measured and is detected by a receiver coil placed on the other side of the object to be measured. A control coil is placed near the transmitter coil generating a change in the magnetic field of the transmitter coil. A field change in the detecting is detected in the control coil. The field is detected in the receiver coil. The difference in time is determined for the detection of the field change in the control coil and in the receiver coil, respectively. The time of penetration through the object to be measured is determined, and the thickness or electrical conductivity of the object to be measured is determined therefrom.